entials widened in favor of the dollar after March, even though foreign monetary policies were tightened along with that of the United States.

The dollar appreciated 10 percent between April and early August (measured against the currencies of other major industrial countries), and this may significantly slow down progress in reducing the real U.S. trade deficit. The rise in the dollar resulted partly from favorable interest-rate differentials, together with reports that the merchandise trade deficit had declined. The rally may also have been caused in part by the suggestion at the Toronto economic summit that the Group of Seven industrial countries would intervene to keep the dollar from falling below what was then its current level. This reduced the fear of depreciation in the near future and encouraged investors to move funds to dollar-denominated investments.

Monetary Aggregates. In its midyear report to the Congress, the Federal Reserve reaffirmed its 1988 target ranges of 4 percent to 8 percent for the monetary aggregates M2 and M3. The central bank also announced tentative 1989 target ranges of 3 percent to 7 percent for the growth of M2 and 3.5 percent to 7.5 percent for M3. In keeping with the Federal Reserve's policy of gradually reducing the growth rates of the monetary aggregates, the midpoints of the 1988 target ranges are lower than the ranges for 1987, and the tentative 1989 ranges are below those for 1988. In any event, both M2 and M3 grew near the tops of their target ranges during the first three months of this year, though their growth fell toward the midpoints of the ranges after March (see Figure I-7).

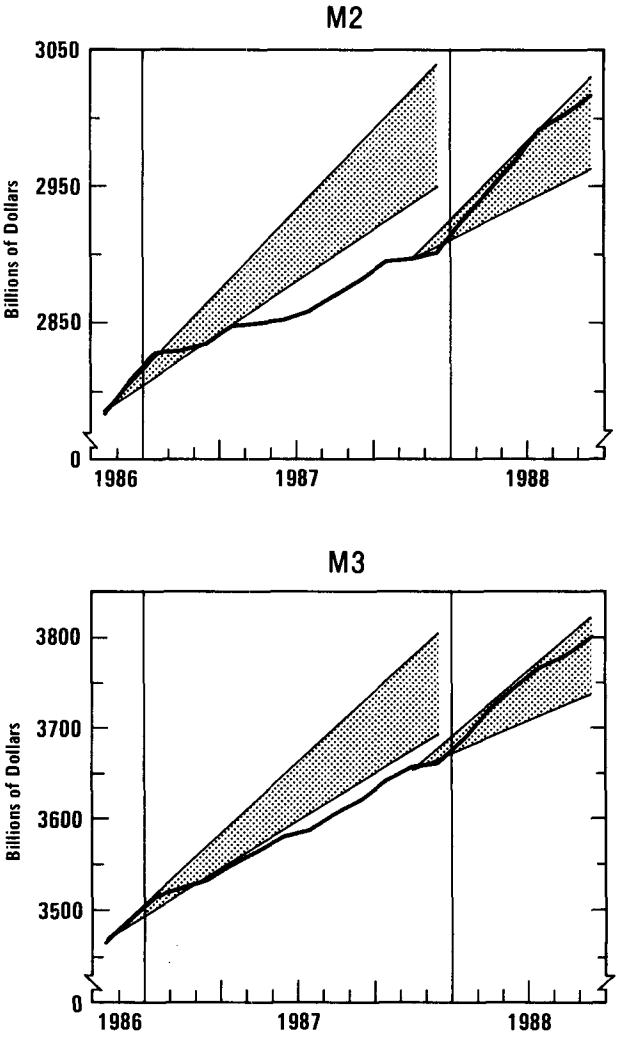
The usefulness of the monetary aggregates as short-term indicators of Federal Reserve policy has been reduced in recent years by an increase in the short-term variability of their relationship to GNP, known as monetary velocity. In fact, this problem is so severe for the narrowest aggregate, M1, that the Federal Reserve no longer announces target ranges for its growth. But the long-term velocities of M2 and M3 are likely to be more stable, so that the relationships between the growth rates of these aggregates and that of nominal GNP are more predictable.

The Outlook for Interest Rates and the Dollar. CBO projects that short-term interest rates will continue rising gradually over the next

several quarters before stabilizing in 1989. A smaller rise in long-term rates is expected. The dollar is projected to remain roughly stable in nominal terms at least through the third quarter of 1988, but then to resume depreciating at a rate of 3 percent to 4 percent a year against the currencies of other industrial countries. The renewed decline reflects persistent U.S. current-account deficits coupled with reduced freedom of other central banks to intervene heavily in the

Figure I-7.

Money Growth and Targets in 1987 and 1988



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Shaded areas indicate target ranges. The range for both M2 and M3 was 5½% to 8½% in 1987, and is 4% to 8% in 1988. M2 includes M1 (currency in the hands of the public, travelers' checks, checkable deposits) plus small time and savings accounts, money-market deposit accounts, many money-market mutual funds, many repurchase agreements, and overnight Eurodollars held by U.S. residents. M3 includes M2 plus large time deposits and repurchase agreements, institution-only money-market deposit accounts, and term Eurodollars held by U.S. residents.

exchange market, since their recent heavy support of the dollar has increased money growth in some countries to rates that could heighten inflationary pressures.

The outlook for interest rates, the dollar, and net exports would be improved if the budget deficit were to decline more sharply. The decline in fiscal restraint forecast for the next year places the burden of slowing domestic demand more heavily on interest-rate increases engineered by monetary policy. Unlike fiscal restraint, however, monetary retrenchment risks reducing investment. It also risks slowing the decline in the trade deficit, since increases in interest rates, if not carefully coordinated with monetary actions in other countries, may cause the dollar to appreciate. There is some evidence that this has already happened.

INFLATION

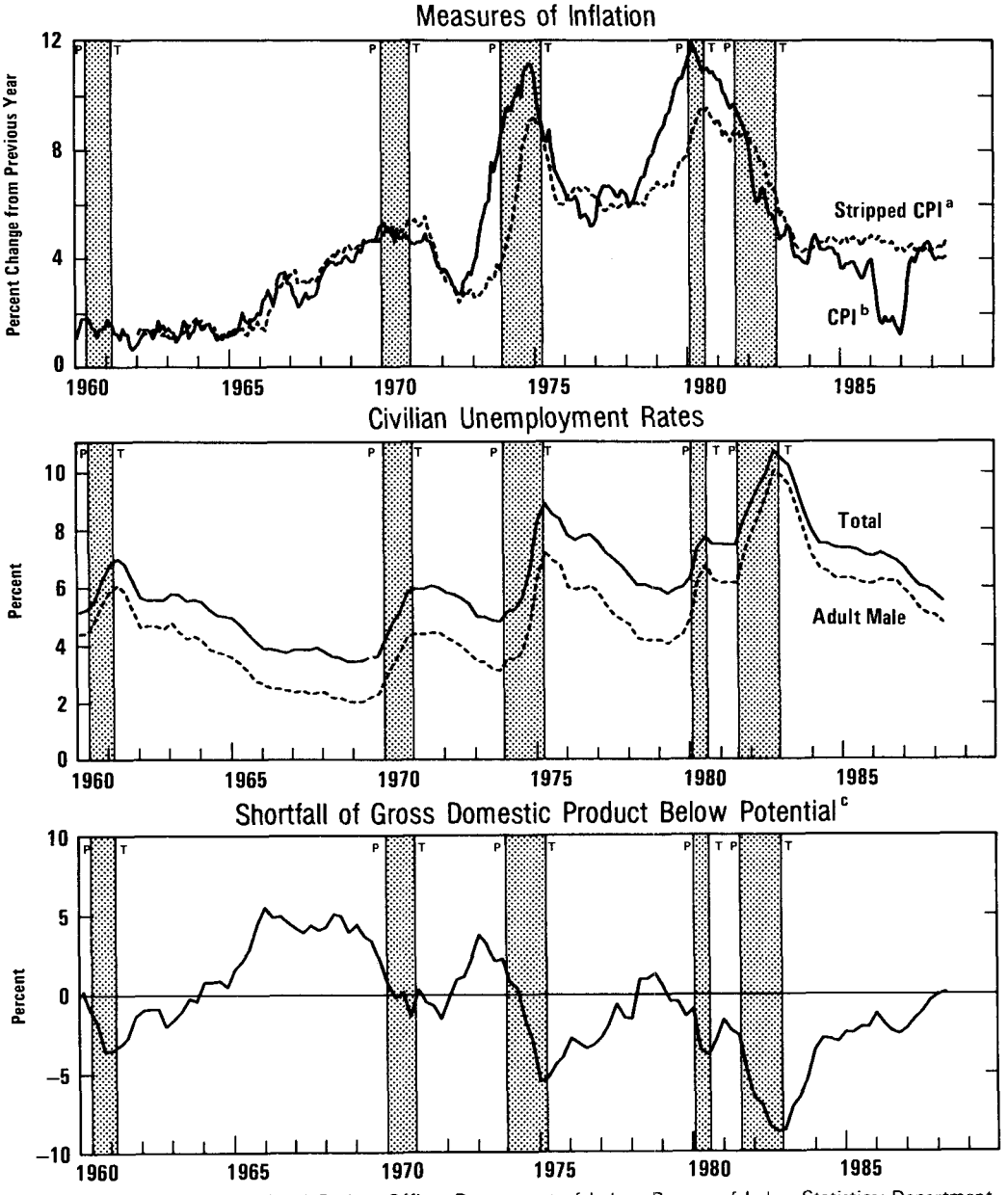
The growth of production in the United States in the past four years has averaged 4 percent and has been accompanied by a large fall in unemployment without, as yet, a significant increase in inflation (see Figure I-8).[2] But several signs suggest that capacity utilization and the labor market are now sufficiently tight that further rapid growth in the economy will not be possible without increased inflation. Some temporary factors--the recent drought, and increases in prices of imported goods--are also likely to push up the rate of price increases temporarily. This section discusses each of these factors in turn.

Has the Economy Reached Potential Output?

The economy's output has no clear limit at any given time, since if sales are sufficiently good, businesses can usually find additional resources--though at higher costs. But it is useful to think of the

2. These estimates of growth in production refer to real gross domestic product (GDP), which includes only production in the United States. Gross national product also includes net investment earnings from foreign assets, which have been falling recently. Thus, real GDP grew 3.7 percent in the first half of 1988, while real GNP grew 3.3 percent.

Figure I-8.
Inflation and Resource Utilization



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics; Department of Commerce, Bureau of Economic Analysis.

[a] CPI-U excluding food, energy, and used cars.

[b] CPI-U from January 1983 to present; before that time the series incorporates a measure of homeownership conceptually similar to that of the current CPI-U.

[c] The gross domestic product gap is the difference between actual and potential real gross domestic product. The Congressional Budget Office's method of calculating potential GDP is detailed in Appendix B of *The Economic and Budget Outlook: An Update* (August 1987).

economy's potential output as the highest level of gross domestic product (GDP) that can be reached without causing a sustained acceleration of inflation. The estimated growth rate of potential GDP is currently about 2.7 percent--substantially below the growth rate of the economy last year, and lower than the growth in the first half of 1988.[3] GDP was very close to the estimated noninflationary potential of the economy in the second quarter of 1988. The unemployment rate--5.3 percent in June--was also just below many recent estimates of the level at which tight labor markets would be likely to spur inflation--the so-called NAIRU (the nonaccelerating inflation rate of unemployment).[4]

Consumer prices have not yet shown a sharp increase in inflation. The Consumer Price Index (CPI), excluding food and energy prices, increased in the first half of 1988 at a rate close to the 4½ percent range in which it has been for the past four years (see Figure I-8). Similarly, the Producer Price Index for finished consumer goods less food and energy increased only slightly faster in the first half of 1988 than it had in 1987, and the fixed-weight GNP deflator also remained close to its earlier range.

But consumer-price inflation will probably accelerate if growth continues at rates above the growth rate of potential output, though it is hard to know how much or how soon. The economy operated substantially above estimated potential output for four years in the late 1960s, and inflation rose from about 1½ percent in 1965 to about 4½ percent in 1970--serious enough to prompt the imposition of wage-price controls in 1971. Briefer episodes of high demand, coupled with shocks to the supply of food and energy, quickly produced much sharper increases in inflation in the 1970s.

3. The calculations that underlie the Congressional Budget Office's estimates of potential output are described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1987).

4. Ibid.

The Labor Market

The labor market tightened substantially in the first half of 1988, as unemployment fell to 5.3 percent of the civilian labor force in June (the lowest rate in 14 years) and wages began to show signs of acceleration for the first time in several years (see Figure I-8). Payroll employment rose at a rate of 3.6 percent from December to July, substantially faster than the 2 percent to 2¼ percent rate that prevailed in 1986 and the first half of 1987.

The growth in employment has been widespread since early 1987, even in manufacturing industries exposed to foreign competition, where employment declined in the preceding two years. Unemployment has fallen most in states--such as Ohio, Illinois, and Michigan--that have benefited most from the decline in the dollar.

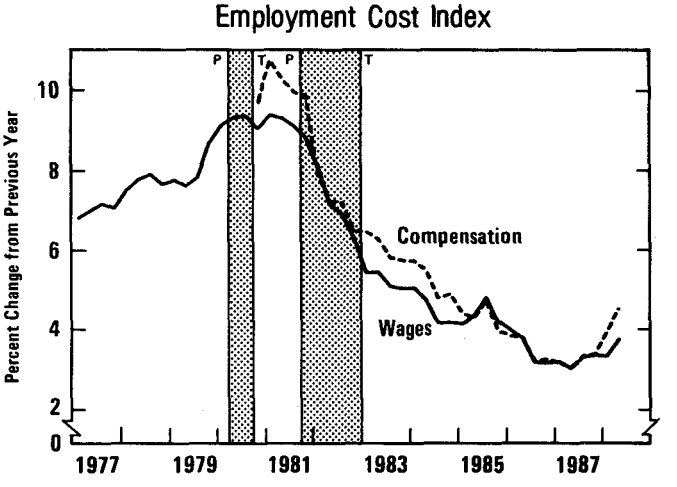
Wages in June were up 3.7 percent from a year earlier, a significant acceleration from recent increases (see Figure I-9 and Table I-3). Other employment costs (fringe benefits and Social Security taxes) increased even more sharply. Even with the recent acceleration, however, the growth of nominal wages has lagged behind that of prices, in part because wages have not yet caught up to the price increases of the past year. In addition, until recently, unemployment rates remained quite high, and foreign competition, despite the fall in the dollar, remained stronger than expected. Now, however, with a tighter labor market and larger increases in the prices of imported goods (discussed below), wage growth is expected to accelerate moderately.

Factors Contributing Temporarily to Price Increases

Three other factors are likely to contribute temporarily to higher price increases: increases in food prices because of the drought, increases in import prices because of the weakness of the dollar, and increases in oil prices.

The Drought. The drought that started in late spring appears to have significantly reduced the 1988 harvest of corn, spring wheat, oats, barley, and soybeans. This report was prepared before U.S.D.A.'s mid-August assessment of the severity of the drought, which was signif-

Figure I-9.
Employment Cost Index



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

icantly worse than was previously thought. Although the full effects of the drought could not yet be assessed, some aspects were already evident:

- o Agricultural output has fallen sharply.
- o Corn, wheat, and soybean prices are up sharply, and show larger than usual volatility because of the uncertainty of the final effect of the drought on production and stocks.
- o Scorched grazing pastures and sharply higher feed prices may have led farmers to increase cattle slaughter rates, cutting back on a herd size that was already very small and temporarily reducing beef prices.
- o Poultry prices are up because of higher feed costs and continued strong demand.

The drought is expected to affect not only consumer food prices but electricity prices as well. Low water levels have forced some utilities to abandon low-cost hydropower.

Higher prices for cereals, oils, and breads are expected to raise total consumer food prices by one-half percent to 1 percent this year. Consumer meat prices, however, will be affected more seriously.

Higher than anticipated slaughter rates during the early summer will moderate the increase in beef prices this year, but lead to tighter supplies and higher prices next year, when food prices are expected to rise about 6 percent, compared with increases of 4.2 percent in 1987 and about 4 percent in 1988.

TABLE I-3. NOMINAL WAGE AND COMPENSATION RATES IN THE NONFARM PRIVATE SECTOR (Percent change from corresponding quarter of previous year)

	1985 IV	1986 IV	1987 IV	1988 I	1988 II
Compensation					
Compensation per Hour[a]	4.5	4.2	4.1	4.4	4.6
Employment Cost Index[b]	3.9	3.2	3.3	3.9	4.5
Union	2.6	2.1	2.8	3.9	4.3
Nonunion	4.6	3.6	3.6	4.0	4.5
Wages and Salaries					
Average Hourly Earnings Index[c]	3.1	2.4	2.6	2.9	3.3
Employment Cost Index[b]	4.1	3.1	3.3	3.3	3.7
Union	3.1	2.0	2.6	2.6	2.9
Nonunion	4.6	3.5	3.6	3.5	4.0
Manufacturing	3.6	3.3	3.4	3.6	3.8
Nonmanufacturing	4.5	3.0	3.4	3.1	3.8
Service-producing	4.7	3.0	3.5	3.1	3.7
Goods-producing	3.5	3.2	3.2	3.5	3.8

SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

a. Quarterly data, not adjusted for overtime or for changes in the mix of industries or occupations.

b. Adjusted for overtime and for changes in the mix of industries and occupations; not seasonally adjusted.

c. Adjusted for overtime in manufacturing and for changes in the mix of industries.

BOX I-1
EFFECT OF DROUGHTS ON OUTPUT AND PRICES

The ultimate effect of this summer's drought on growth of the economy and consumer prices will not be clear until after this report is released. In the meantime, one way of estimating the effect is to examine the economic consequences of the last severe drought in 1983.

The 1983 drought coincided with a government program (Payment-in-Kind, or PIK) that also cut production by sharply reducing acreage planted. The drought reduced corn yields from 113 bushels per harvested acre in crop year 1982 to 81 bushels in 1983. Real farm product in calendar year 1983 fell 20 percent--the largest percentage decline in postwar years. The slump in the farm sector reduced real growth in the economy by half a percentage point, of which about half was caused by the drought.

Production cutbacks in 1983 resulted in higher feed costs for livestock producers and caused poultry prices to rise. The same factor led to increased slaughter of cattle and hogs that caused red meat prices to fall in 1983, but contributed to food price pressures in 1984. Total consumer food-at-home prices rose only 1.1 percent in 1983 and 3.7 percent in 1984. This price pattern was not fully attributable to the drought: prices of fruits and vegetables, which were much less affected by the drought, remained constant in 1983 and rose sharply in 1984.

The 1988 drought will probably affect farm output at least as much as did the 1983 drought. Many analysts expect corn yields in 1988 to suffer as much or more, since the 1988 drought started earlier in the growing season and affected the pollination as well as the maturation of corn. The 1988 drought has also affected a wider area and will probably destroy over half of the spring wheat crop, which was less affected in 1983.

Slaughters of cattle and hogs may not occur on the same scale this time as they did in 1983. The current cattle herd is at its smallest since 1961, and market expectations of higher cattle prices next year will encourage ranchers to conserve their herds. In addition, the government has been releasing corn from its Commodity Credit Corporation stocks since late June, and has established emergency programs that provide subsidized feed to livestock farmers. Analysts disagree on the extent to which these factors will limit drought-induced slaughters in 1988, though they generally agree that next year's beef supplies will be tighter and prices higher. Not only will higher feed prices raise the costs of fattening cattle in early 1989, but ranchers also will want to rebuild their herds.

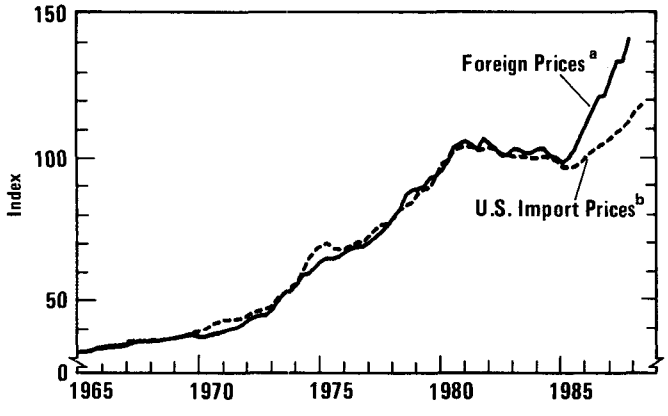
Import Prices. The growth in import prices has increased sharply in recent quarters, but has not matched the depreciation of the dollar since early 1985 (see Figure I-10). Several factors help explain the sluggish growth of import prices:

- Costs of production, and therefore prices of traded goods, have risen less than consumer prices in the countries with which the United States trades.
- Foreign exporters have absorbed some of the fall in the exchange rate in reduced profits.
- A larger and larger share of imports is coming from newly industrialized countries such as Korea and Taiwan, whose currencies have not moved as much against the dollar as have European and Japanese currencies.

The potential for further foreign cost cutting and profit reduction is limited, however, so that import prices are expected soon to reflect changes in the exchange rate more fully.

Oil Prices. Disagreements among members of the Organization of Petroleum Exporting Countries (OPEC) and other oil producers resulted in downward pressure on oil prices during the first half of

Figure I-10.
Foreign Prices and U.S. Import Prices



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; International Monetary Fund.

a Foreign prices converted to U.S. dollars for 18 countries weighted by shares in U.S. nonpetroleum imports.

b Fixed-weight price index for nonpetroleum merchandise imports.

1988. Meetings of oil producers in April and June failed to reach agreements on restricting production that would have lifted the price toward the OPEC target of $18 from its range of $13 to $15 in mid-1988. Only the ability of the OPEC cartel to limit production sustains prices above the level of less than $10 that would otherwise be set by production costs.

The outlook for oil prices is complicated by political uncertainties. The move toward a cease-fire in the Persian Gulf war could, in principle, reduce oil prices further by making it easier to transport oil through the Gulf. On the other hand, if declining tensions make it easier for Iran and Iraq, both OPEC members, to agree on production policies, prices could increase. Under the circumstances, few analysts venture predictions on oil prices with any confidence. However, with continued economic growth in the United States and in other major industrial countries, agreement on production and pricing policies for oil could become easier, and real oil prices are expected to rise in the long run.

THE CHANGING COMPOSITION OF GROWTH

During much of the 1980s, the economy's growth was sparked by consumer and government spending: the personal saving rate generally declined, and government deficits rose sharply. As a result, the share of net national product (NNP) devoted to net investment and net exports--the two kinds of spending that most directly determine the potential future growth of income--dropped to a record postwar low in 1986 (see Figure I-11).[5] The picture has improved in the last year and a half, and especially in the last two quarters, when virtually all of the growth in final sales came from business fixed investment and net exports. But net investment and net exports remain a much lower share of NNP than in the 1960s or 1970s.

5. Net national product is the portion of gross national product available for purposes other than maintaining the existing capital stock: that is, GNP less depreciation. Net investment is gross investment less depreciation. Net exports are exports less imports, currently a large negative number; they are approximately the same as net lending abroad (or currently, net borrowing from foreigners). Other, more precise measures of net borrowing are used in other parts of this report.

Three interrelated factors have contributed to the recent improvement in net investment and net exports as a share of NNP:

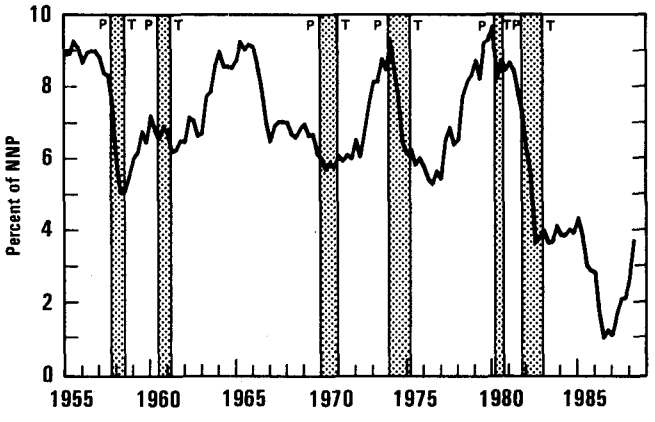
- The dollar has fallen about 40 percent in both real and nominal terms since its peak in early 1985, dramatically improving the competitive position of U.S. producers while cutting into the real incomes of U.S. consumers.
- The stock market crash of October 1987 erased a year's increase in the value of equities held by households, leading to somewhat higher household saving.
- Federal fiscal policy tightened, with the standardized-employment deficit dropping from 4.4 percent of potential GNP in fiscal year 1986 to 3.4 percent in 1987 and 3.0 percent of potential GNP in 1988.

Fixed Investment

The recent strength of fixed investment has been the result of business spending--specifically for computers and other categories of producers' durable equipment. Housing starts remained relatively depressed, particularly multifamily starts, which have been affected by the fall-

Figure I-11.

The Share of Investment and Net Exports in Output



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

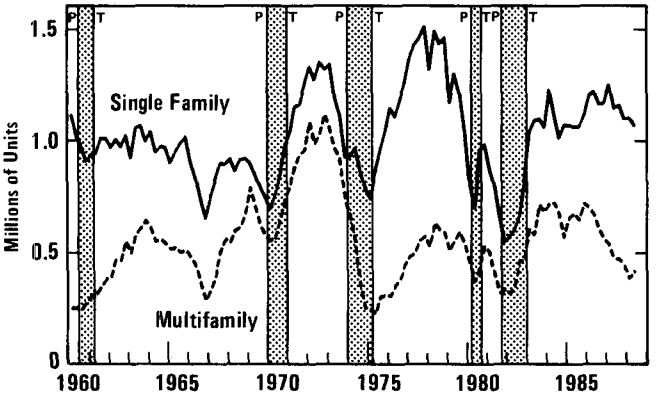
NOTE: Net fixed investment plus net exports as a percent of net national product.

ing rate of new household formation among the young and by changes in the tax treatment of investment in structures (see Figure I-12).

After last October's stock market plunge, many analysts regarded the outlook for gross business fixed investment as bleak because of weakened business confidence. Since the fourth quarter of 1987, however, real business fixed investment has grown at an annual rate of 10.8 percent. Equipment purchases surged at a 22 percent annual rate in the first quarter of 1988, paced by extraordinary growth in spending for office equipment and, to a lesser extent, by purchases of motor vehicles. Following one quarter of decline, plant spending grew 11.8 percent in real terms during the second quarter.

Most advance indicators point to continued high levels of capital spending, at least through this year (see Table I-4). Capacity utilization rates have risen, and in manufacturing they now exceed the rates reached at four out of the last eight cyclical peaks. Healthy growth in new orders for equipment continued into 1988, and unfilled orders rose at a 17 percent rate in the first half of the year. Capital spending surveys have found that plans for expansion are widespread among industries. The Commerce Department's spring survey of company spending plans for plant and equipment shows a healthy 10.7 percent nominal expansion for 1988. The April-May response to the McGraw-Hill survey shows nominal business investment advancing 9.9 percent. Both surveys indicate that spending plans have been revised upward since late last year.

Figure I-12.
Housing Starts



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of the Census.

TABLE I-4. CURRENT INDICATORS OF BUSINESS FIXED INVESTMENT AND SURVEYS OF CAPITAL SPENDING PLANS FOR 1988

	1986	1987	1987 I	1987 II	1987 III	1987 IV	1988 I	1988 II
Current Indicators								
Real Nondefense Capital Goods Orders (Billions of 1982 dollars per month)	30.0	33.5	30.5	33.6	34.6	35.4	38.6	37.7
Capacity Utilization (Percent)	79.4	80.7	79.5	79.9	81.2	82.1	82.4	82.9
Corporate Economic Profits (Billions of dollars, annual rate)[a]	299	310	298	305	322	316	316	n.a.
Corporate Cash Flow (Billions of dollars, annual rate)[b]	387	379	372	374	385	384	387	n.a.
Corporate AAA Bond Rate (Percent)	9.0	9.4	8.4	9.2	9.8	10.2	9.6	9.8
Standard & Poor's 500 Stock Price Index (Percent change, annual rate)	26.5	21.4	72.6	21.6	40.6	-59.2	4.4	8.0

Surveys of Capital Spending Plans for 1988 (Percent increase)

	Nominal	Real
Department of Commerce[c]	10.7	11.9
McGraw-Hill[c]	9.9	5.3

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; McGraw-Hill, Inc.; Conference Board; Federal Reserve Board.

NOTE: n.a. = not available.

a. Economic profits are adjusted for inventory valuation and capital consumption adjustments.

b. Corporate cash flow is the sum of retained earnings, capital consumption allowance at book value, and the inventory valuation adjustment.

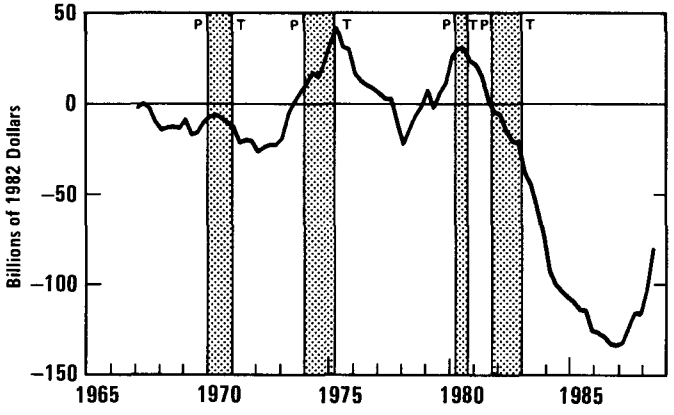
c. Conducted in April and May 1988.

Because of increased depreciation, the long-run trend in net investment is less favorable than that of gross investment: an increased share of equipment investment has gone to relatively short-lived assets, such as autos and computers, while investment in structures has been a reduced share of the whole. Shorter-lived capital depreciates faster. This shift to shorter-lived assets is a long-term trend that accelerated in the 1980s. One important factor is the dramatic technological improvement in computers, which has increased their importance in business investment.

Foreign Trade

The improvement in real net exports of goods and services that began in 1986 continued in the first half of 1988 (see Figure I-13). Even nominal net exports began to improve this year for the first time since the dollar began depreciating in early 1985. (A related measure, the current account in the balance-of-payments accounts, has not improved as much because it includes capital gains that are not reflected in the measurement of net exports.) The net export deficit remains high in both real and nominal terms, however, and the dollar's appreciation in 1988 is likely to offset at least some of its recent decline. Indeed, many economists believe that increased saving by consumers or the government will be needed to reduce the trade deficit by any significant amount.

Figure I-13.
The Turnaround in Trade



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: Exports of nonagricultural, noncomputer goods and services less imports of nonpetroleum, noncomputer goods and services.

Competitiveness. Recent improvement in the trade balance reflects gains in competitiveness from the depreciating dollar, relatively slow growth in U.S. wages, and increases in manufacturing productivity. Since its peak in early 1985, the dollar has depreciated about 40 percent in both real and nominal terms relative to the currencies of major U.S. trading partners. Moreover, productivity growth in U.S. manufacturing has been relatively strong; and with moderate wage growth, unit labor costs have been kept down to an annual growth rate of about 2 percent to 3 percent. The benefits have been most evident in exports, which are on a rapid upward trend: real nonagricultural exports grew by 24.3 percent (at an annual rate) in the first half of 1988. This exceptional growth may slow, however, in part because of the 10 percent appreciation of the dollar since April.

Improvement on the import side has been slower, largely because import prices increased only sluggishly, but real imports of consumer goods began to fall in the first half of 1988. Overall, increases in capital goods imports have kept imports rising in both real and nominal terms.

Investment Income. Part of the deterioration in the current-account balance in the first half of 1988 resulted from a deterioration in the balance of investment income flows (that is, the income U.S. residents earn on their overseas assets, less what foreigners earn on their assets located in the United States). This balance will probably continue on a downward trend as long Americans keep borrowing from foreigners, which means as long as the current account remains in deficit.

Net Exports and Domestic Saving. The trade balance may not continue to improve at recent rates without further changes in government fiscal policy. Many analysts describe the chronic current-account deficit as reflecting dissaving--that is, it shows the excess of domestic spending, primarily for consumption, over income from production. Recent improvement in the trade picture has come mainly from increases in production as the depreciating dollar has stimulated exports; to a lesser extent, it stems from reduced spending as the falling dollar has increased consumer prices for imported goods, cutting real incomes. But since the economy is now much closer to capacity than it was three years ago, it may not be able to continue to expand at recent rates. Additions to capacity from government and

private investment will at best be slow. Any continued improvement in the current-account balance may therefore require additional domestic saving, either by consumers or through a further reduction in the budget deficit.

Consumption

Growth in consumption has slowed since the end of 1986, at first because of slower growth in real disposable income, and later because of increases in the rate of saving out of disposable income. From 1982 to 1986, consumption grew at a rapid average rate of 4.6 percent. While consumption of services has continued to increase since 1986, and auto purchases have swung widely with changes in sales incentives, other categories of consumer spending have grown little since 1986.

The Saving Rate. The personal saving rate continued to decline through the third quarter of 1987, until the stock market crash (see Figure I-14). As a consequence of the long period of low saving, the ratio of personal debt to income has reached an all-time high. Although household net worth--buoyed by stock market and real estate gains--has also risen, the present debt/income ratio implies serious risks of default by households with little liquid wealth if an unexpected reduction in income or a sharp increase in interest rates should make it more difficult for them to service their debts. So far, however, delinquencies on mortgages and installment loans remain within normal ranges.

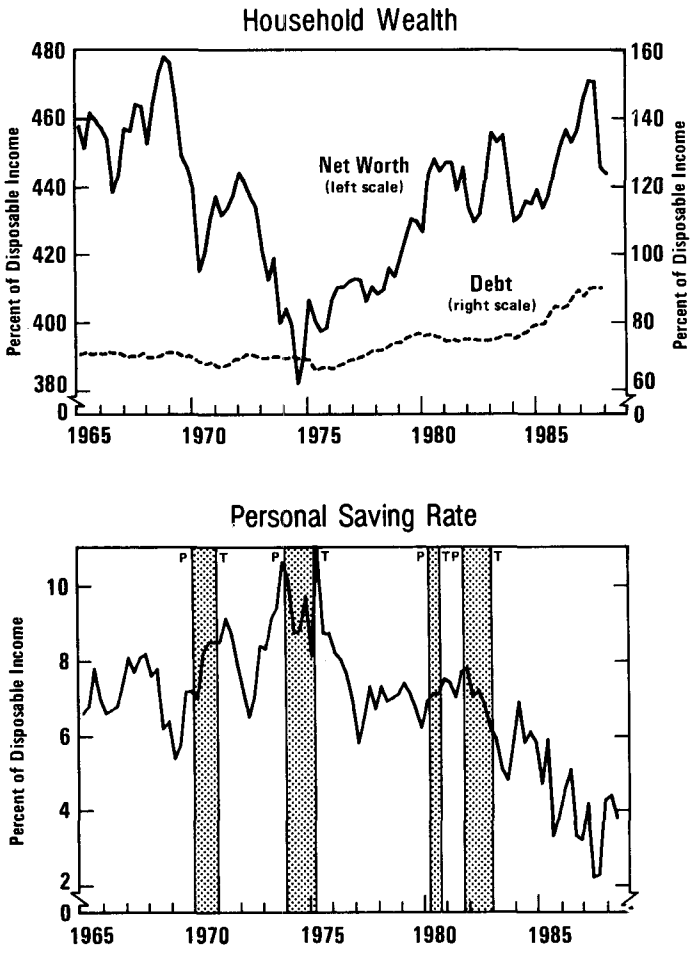
Consumer confidence plummeted and the personal saving rate increased sharply right after the stock market crash. The saving rate in the national income and product accounts (NIPA) went from 2.3 percent in the third quarter of 1987 to 4.3 percent in the fourth quarter. Much of this increase, however, reflected the end of special incentives to buyers of cars, which reduced car sales and raised saving. The effects of the crash on consumption were expected to persist into this year, reducing the growth of consumption further below the relatively low rate experienced in 1987. But real income growth in the first half of 1988 greatly exceeded expectations. As a result, although the saving rate remained above its pre-crash level, consumption grew

quite sharply. Renewed auto incentives accounted for about a fourth of this growth, but purchases of services rose at a 3.9 percent rate in the first half of the year.

The personal saving rate continues to be relatively low, even after its recent rise, and is likely to remain close to its recent range. CBO does not expect it to resume the declining trend that it showed during

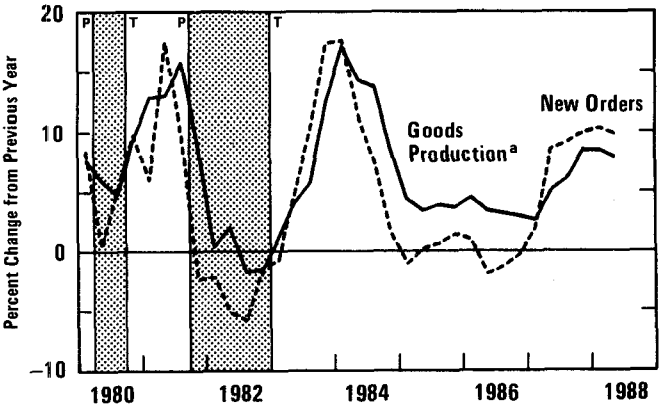
Figure I-14.

Household Saving and Wealth



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Federal Reserve Board.

Figure I-15.
Goods Production and New Orders



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

[a] Sales of goods plus inventory accumulation less imports of goods.

the period up to mid-1987, however, because some of that decline was driven by the boom in the stock market, which is not likely to recur.[6]

Inventory Accumulation

Inventory accumulation was rapid at the end of 1987. The rate of accumulation has since slowed, and the remaining inventory surplus will probably not lead to a sharp reduction in production for two reasons:

- Orders remain strong, as they have since early 1987, suggesting both that retailers do not feel that their inventories are too large and that manufacturers will not soon change their rate of production;
- The recent accumulation of inventory does not seem to have been the result of an unexpected downturn in sales growth, as had been true just before previous sharp inventory adjustments; instead, it followed a sharp upturn of production growth in mid-1987 that coincided with an increase in the growth of orders (see Figure 1-15).

6. See Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1989-1993* (February 1988), p. 19.

Some analysts believe that any inventory correction will be focused on imports, implying little reduction in domestic production. Anecdotal evidence suggests that an unusually large proportion of recent inventory accumulation has been accounted for by imported goods, perhaps in anticipation of import price increases. If this is true, it could help explain why orders for domestically produced goods have remained strong.

The Public Sector

Real government purchases (excluding the activities of the Commodity Credit Corporation) showed almost no growth in the first half of 1988, a sharp change from the more than 4 percent growth experienced in each of the past four years. This slowing resulted from a decline in real federal defense purchases, while state and local spending kept pace with GNP growth.

Farm inventories recorded in the national income accounts as held by the Commodity Credit Corporation (CCC) dropped at a $19 billion rate in the first half of 1988, the largest two-quarter decline on record. Part of this reduction in inventory reflected the drought, which has led farmers to pay off loans secured by corn and other grain inventories. However, the full impact of the drought on CCC inventories has yet to be felt.

FORECASTS AND PROJECTIONS

CBO's economic forecast extends through the end of calendar year 1989, and provides the economic assumptions CBO uses in its budget projections for fiscal year 1989. The forecast reflects CBO's judgments on the effect on the economy of such recent developments as higher commodity prices, the drought, and movements in the exchange rate and import prices.

For the subsequent 1990-1994 period, CBO makes no forecast. Instead, the budget projections for that period are based on economic projections that are more mechanically constructed, using historical

averages of growth rates and relationships among a few key variables.[7] In brief, the gap between real GDP and potential GDP is assumed to revert smoothly to historical average levels by the end of the projection period, as is the real interest rate, while inflation rates are assumed to remain constant at slightly below their historical averages throughout the 1990-1994 period. These projections incorporate average fiscal and monetary policy over the years since World War II, and the average historical experience of economic recessions or of supply shocks such as the 1974 or 1979 oil crises and the more recent declines in oil prices. For that reason, the absence of an explicit recession in the out-year projections does not mean that CBO assumes no recession will occur between now and 1994: instead, the historical average roughly reflects the fact that recessions have occurred once in five years on average.

The Short-Term Forecast

The short-term economic forecast shows moderate growth through the end of 1989 and describes an economy operating close to its potential (see Table I-5). The forecast assumes that the Federal Reserve's policy of moderate monetary tightening limits real growth of domestic demand to rates that will avoid a sharp increase in inflation. The Federal Reserve is assumed to allow short-term interest rates to rise more than long-term rates, thus flattening the yield curve. Unemployment remains close to current rates.

Inflation. Largely because of drought-related increases in food prices, consumer prices are forecast to increase moderately faster in 1989 than in 1988. Import price increases are also expected to push up consumer prices, though the recent strength of the dollar has reduced the near-term growth of import prices so that they are not expected to be as much of a factor as in previous CBO forecasts. The unemployment rate is now low enough to imply some moderate acceleration in wage rates. But real wage rates are likely to fall in 1988 and 1989.

7. The procedure for constructing these out-year projections was described in Appendix B, Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1989-1993* (February 1988).

Sources of Growth. Net exports and business fixed investment are the main sources of economic expansion through the forecast period, though they grow more slowly than in the first half of 1988. Excluding factor income flows--net income on foreign investments--real net exports are forecast to increase by $67 billion in 1988, in large part because of past sharp declines in the dollar. The more recent strength of the dollar causes the rate of improvement in net exports to slacken somewhat in 1989, to about $16 billion. Business fixed investment also contributes to growth, not--as in the first half of 1988--through extraordinary increases in computer purchases but through the broad advance in capital spending indicated by this spring's surveys on capital spending.

Though net exports improve substantially in the forecast, the current-account balance remains seriously in deficit. As a result, the net

TABLE I-5. THE CBO FORECAST FOR 1988 AND 1989

	Actual		Forecast	
	1986	1987	1988	1989
Fourth Quarter to Fourth Quarter (Percent change)				
Nominal GNP	4.8	8.3	6.4	7.0
Real GNP	2.0	5.0	2.6	2.7
Implicit GNP Deflator	2.8	3.1	3.7	4.2
CPI-W[a]	0.9	4.5	4.4	5.0
Calendar-Year Averages (Percent)				
Unemployment Rate	7.0	6.2	5.5	5.5
Three-Month Treasury Bill Rate	6.0	5.8	6.3	7.1
Ten-Year Government Bond Rate	7.7	8.4	8.9	9.1

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. Consumer Price Index for urban wage earners and clerical workers.

87-885 - 88 - 3

external debt of the United States and the net income on investments continue to deteriorate. The expected decline in net investment income reduces the real GNP growth rate by an average of 0.2 percentage point below the growth rate of gross domestic product in 1988 and 1989.

In 1988, consumer spending increases at about a 2½ percent rate, slightly below the 1987 rate and well below the 4½ percent rate that prevailed in the preceding three years. In 1989, growth in consumption is further restrained by relatively slow growth in real disposable income, since the increase in consumer prices is not fully matched by wage increases.

The Drought. The current drought affects the forecast in several respects: agricultural production is reduced in 1988 by about 0.3 percent of GNP (mostly in the second half); food prices are increased in 1988 and 1989 by about one-half percent and 1½ percent, respectively, adding about 0.3 percentage point to the growth of the CPI and the GNP deflator in 1989; agricultural export prices are increased sharply, thus bringing a temporary boost to the current-account balance of payments; and farm inventories are cut sharply in 1988.

The outlook for 1989 assumes a return to normal weather and crop yields, coupled with increased acreage planted, that will boost agricultural production in 1989. On the other hand, livestock farmers, with herds at low levels even before the drought-induced slaughtering, are expected to rebuild their herds, thus making meat supplies lower than normal.

Comparison with CBO's Winter 1988 Economic Outlook. Because the economy has already grown more rapidly in the first half of 1988 than previously expected, the current forecast calls for substantially stronger economic growth in 1988 than did CBO's winter 1988 forecast (see Table I-6). The present forecast sees inflation in 1988 as being slightly lower than was expected last winter, but the stronger economy and higher food prices will push up consumer prices slightly in 1989 relative to the winter forecast. With less short-run pressure on the dollar, long-term interest rates should be slightly lower than forecast earlier (not fully reflecting the upward revision in inflation for 1989, which the markets and the Federal Reserve are assumed to

TABLE I-6. THE CBO FORECAST FOR 1988 AND 1989, IN COMPARISON WITH THE FORECAST MADE LAST WINTER

	Assumed[a]	Forecast	
	1987	1988	1989
Percent Changes, Fourth Quarter to Fourth Quarter			
Nominal GNP			
Winter	7.2	5.7	6.9
Summer	8.3	6.4	7.0
Real GNP			
Winter	3.8	1.8	2.6
Summer	5.0	2.6	2.7
Implicit GNP Deflator			
Winter	3.3	3.9	4.2
Summer	3.1	3.7	4.2
CPI-W[b]			
Winter	4.5	4.9	4.8
Summer	4.5	4.4	5.0
Calendar-Year Averages			
Unemployment Rate (Percent)			
Winter	6.2	6.2	6.1
Summer	6.2	5.5	5.5
Three-Month T-Bill Rate (Percent)			
Winter	5.8	6.2	6.7
Summer	5.8	6.3	7.1
Ten-Year Government Bond Rate (Percent)			
Winter	8.4	9.3	9.5
Summer	8.4	8.9	9.1
Wages and Salaries (Percent of GNP)			
Winter	49.3	49.4	49.6
Summer	49.7	50.1	50.0
Corporate Profits (Percent of GNP)			
Winter	6.8	6.4	6.4
Summer	6.9	6.5	6.4
Other Taxable Income (Percent of GNP)			
Winter	21.2	21.2	21.2
Summer	20.9	21.0	21.3

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

a. The national income data for 1987 were revised in July.

b. Consumer Price Index for urban wage earners and clerical workers.

recognize as temporary). Short-term interest rates, on the other hand, are assumed to be higher than were forecast by CBO last winter, since the economy is stronger than anticipated and the Federal Reserve is now expected to act more strongly to restrain the growth of domestic demand.

The Medium-Term Projections

CBO projects annual real GDP growth as averaging 2.4 percent between 1989 and 1994, and annual GNP growth at 2.3 percent, reflecting the reduced flow of net investment income from abroad. The civilian unemployment rate is projected to remain stable and close to current levels (see Tables I-7 and I-8). The GDP and GNP growth rates are slightly below potential growth, since CBO's use of historical averages assumes, in effect, that a mild recession will occur sometime during the five-year projection period. Because the growth of the labor force is expected to slow after 1989, these rates are somewhat slower than those for the 1988-1989 forecast period. Moreover, they are below the rates projected by CBO in February because the expansion of the economy since the publication of that report has moved it closer to capacity (see Figure I-16).[8]

The inflation rate as measured by the GNP deflator remains constant at an annual rate of 4.1 percent during the projection period, close to the average rate experienced since World War II. CPI inflation is slightly higher, at 4.4 percent per year. The difference between the growth rates of the GNP deflator and the CPI reflects three main factors in the projection:

- The dollar is projected to show a downward trend, and this decline increases the prices of imported goods, which are reflected in consumer prices but not in the GNP deflator.

- Computer prices continue to fall, both absolutely and relative to other prices. Since computer prices are reflected di-

8. See Howard N. Fullerton, Jr., "Labor Force Projections: 1986 to 2000," *Monthly Labor Review*, vol. 110, no. 9 (September 1987), pp. 19-29.

TABLE I-7. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1990 THROUGH 1994

	Actual	Forecast		Projected				
	1987	1988	1989	1990	1991	1992	1993	1994
Nominal GNP (Billions of dollars)	4,527	4,844	5,189	5,525	5,882	6,263	6,670	7,103
Nominal GNP (Percent change)	6.8	7.0	7.1	6.5	6.5	6.5	6.5	6.5
Real GNP (Percent change)	3.4	3.8	2.7	2.3	2.3	2.3	2.3	2.3
Implicit GNP Deflator (Percent change)	3.3	3.1	4.3	4.1	4.1	4.1	4.1	4.1
CPI-W (Percent change)	3.6	4.1	4.9	4.6	4.4	4.4	4.4	4.4
Unemployment Rate (Percent)	6.2	5.5	5.5	5.5	5.6	5.6	5.7	5.7
Three-Month Treasury Bill Rate (Percent)	5.8	6.3	7.1	6.8	6.6	6.3	6.1	5.9
Ten-Year Government Bond Rate (Percent)	8.4	8.9	9.1	8.7	8.3	8.0	7.6	7.4
Tax Bases (Percent of GNP)								
Corporate profits	6.9	6.5	6.4	6.3	6.2	6.2	6.1	6.1
Wage and salary disbursements	49.7	50.1	50.0	50.1	50.2	50.2	50.3	50.3
Other taxable income	20.9	21.0	21.3	21.2	21.1	21.0	20.8	20.7
Total	77.4	77.6	77.7	77.5	77.5	77.4	77.2	77.1

SOURCE: Congressional Budget Office.

rectly in the GNP deflator but not in the CPI, the deflator falls relative to the CPI.

- The relative importance of the computer sector in investment, imports, and exports continues its increase, extending the recent downward bias given by computers to the GNP deflator (see Appendix A).

The short-term interest rate declines throughout the projection period until it reaches 5.9 percent--a level consistent with the average of real short-term rates since the advent of the floating exchange-rate regime in 1973. Similarly, the long-term interest rate declines until it reflects the average spread between short- and long-term rates during this period.

TABLE I-8. MEDIUM-TERM ECONOMIC PROJECTIONS FOR FISCAL YEARS 1990 THROUGH 1994

	Actual	Forecast		Projected				
	1987	1988	1989	1990	1991	1992	1993	1994
Nominal GNP (Billions of dollars)	4,437	4,769	5,102	5,440	5,790	6,165	6,565	6,992
Nominal GNP (Percent change)	5.9	7.5	7.0	6.6	6.4	6.5	6.5	6.5
Real GNP (Percent change)	2.6	4.4	2.6	2.4	2.3	2.3	2.3	2.3
Implicit GNP Deflator (Percent change)	3.2	3.0	4.2	4.1	4.1	4.1	4.1	4.1
CPI-W (Percent change)	2.7	4.1	4.8	4.7	4.4	4.4	4.4	4.4
Unemployment Rate (Percent)	6.4	5.6	5.5	5.5	5.6	5.6	5.7	5.7
Three-Month Treasury Bill Rate (Percent)	5.6	6.1	7.0	6.9	6.6	6.4	6.1	5.9
Ten-Year Government Bond Rate (Percent)	7.9	8.9	9.1	8.8	8.4	8.1	7.7	7.4
Tax Bases (Percent of GNP)								
Corporate profits	6.9	6.7	6.4	6.3	6.2	6.2	6.1	6.1
Wage and salary disbursements	49.6	50.0	50.0	50.0	50.1	50.2	50.2	50.3
Other taxable income	20.8	21.0	21.2	21.2	21.1	21.0	20.8	20.7
Total	77.3	77.7	77.6	77.6	77.5	77.4	77.2	77.1

SOURCE: Congressional Budget Office.

U.S. Foreign Debt and the Balance of Payments. Some of the long-run consequences of current economic imbalances become evident in the medium-term projections. Real net exports improve substantially, the result of the assumed downward trend in the real exchange rate. Nevertheless, the current account remains in deficit throughout the projection period. As a result, the net foreign indebtedness of the economy continues to grow, though at a declining rate. Under CBO's assumptions, net indebtedness exceeds $1 trillion dollars by 1994.[9]

9. This estimate is similar to those appearing in James K. Jackson, *Foreign Ownership of U.S. Assets: Past, Present and Prospects*, Congressional Research Service, Report for Congress 88-295E (April 15 1988); and "Financing the U.S. Current Account," *World Financial Markets* (New York: Morgan Guaranty Trust Company, November/December 1987), pp. 7-15. Other analysts differ on the details of the medium-term outlook for net debt, but massive growth is common to all projections.